

Pilling

1. Pilling

Polyamide, Acrylic, Polyester “ ” .

Pill Loop Pill

가

. Pilling

가 .

Pill 가

가 —

— .

Pilling .

Pill , 가

, ,

.

2. Pilling

(1)

가)

Pill

Pilling

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 .
 , Acryl, Polyester, Polyamide, Poly vinyl Chloride
 35~65% (가 Flannel)
 가 .
 가
 .
 Nylon Formaldehyde
 Polysiloxane Pilling
 . ,
 .
)
 Pilling 가
 가 . Pilling
 Pilling
 가 .
 가

.

I.C.I. Cupon Polyester Polyamide

, Polyamide Polyester 가

50%

가 . Polyamide

Polyester .

Pilling

.

1 10

0.1

Pilling . Pill

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)

가),), Polyester

922406 Polyamide 924091 .

가 5Denier 1 5~18 가 가

Pilling 가 .

Polyamide ,

가 가 Polyester 가 가

70 .

Tow .

275,000Denier, 70,000 Polyester Tow 90 3~4

Stuffer-Box 1 10~14

22.5% 가 30 40

130 S.F

.

Polyamide Tow 4Denier Tow 1 15

Stuffer-Box 16% 30 30

Tow 15% .

26 가 .

Pilling

5 .

Pilling

가 .

) 가

Polyester 가

Polyester가 10%

Silky Smooth .

Denier 4gr. 1.5~3.0gr. 가 .

[Cetyl Trimethyl Ammonium Bromide] 가 [Dimetyl Phenyl Benzyl Ammonium

1% 가 가 ,

20% 5% 가

1/25 .

Polyester 가

Pill 가

0.88

Pilling

암모니아塩 의 処理時間	糸 強 度 (g/t)	破断伸長 (%)	纖維의 本 質的 粘度	纖維物質의 平均分子量	摩耗耐力 (回)	Pill 數 (纖 物 1平方in)
0	2.6	27.7	0.59	10,500	100,000	47.5
18	2.32	26.0	0.52	8,750	80,000	37.5
42	1.52	19.8	0.40	6,000	23,000	2.0
66	0.82	10.5	0.38	5,600	7,000	0

Acryl

Acryl 가 가

75 가

90 ~100 Stuffer-Box 1 10~20

가

. Tow

Denler

0.035~0.050gr. 가 1 0.400~0.550 0.8~3

- 1007620 -

(2)

가)

, 가

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가 .

가

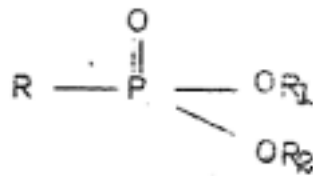
Pilling

가 . — 1016511- Polyester
0.1~0.5% 가

가 Pilling 가 .

[Polyalkylene Phosphonate]

가 .



R1 R2 [Alkyl], [Alkenyl] [Alkyl Aryl]

Halogen 가 [Phosphone Ester] Methyl

Phosphone [Dimethyl] [Dimethyl Ester], [4Chloro Methyl Benzyl

Phosphone Dimethyl Ester], [Vinyl Phosphone Di- β -Chloroethyl Ester]

[β -Chloro ethyl Ester] .

Polyester

[Ethylene Glycol] Terephthal Dimethyl Ester 가

215 Polyester

[β -Chloro ethyle phosphone

Di- β -Chloro ethyl Ester] 가 . 가 200 ~220

가 [Polyethylene Terephthalate]

0.1~0.3% 가 Polyester

가 Pilling 가 Polyester

가 .

) 가

Pilling

—

1013573Ester

0.5~0.1%

Polyester

가

. 가

가

가 .

가

Pilling

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가

[Sulfonamide], [Phophonate], [Phosphinate]

가

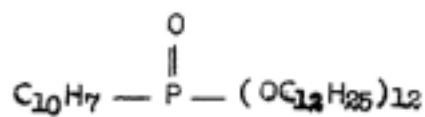
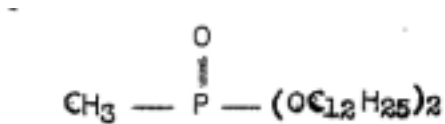
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Sulfonamide : N. N Diethyl-W, W-Hexamethylene Dimethane Sulfonamide

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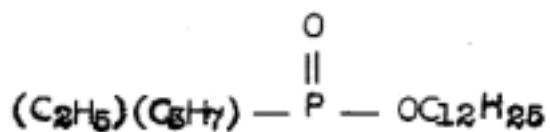
$\text{CH}_3\text{SO}_2\text{N}(\text{C}_2\text{H}_5)(\text{CH}_2)_6\text{N}(\text{C}_2\text{H}_5)-\text{O}_2\text{SCH}_3$

Phosphonate : Di-Lauryl Methane Phosphonate



Di-lauryl Naphthalene Phosphonate가 .

Phosphinate : Lauryl Ethyl Propyl Phosphinate



Phenyl Methyl- α -Naphthyl Phosphinate가 .

가 Polyester .

Pilling 300

[Polyglycol] [Diethylene Glycol] 가 .

[Sulfonamide], [Phosphonate], [Phosphinate] 가

가 Polyester ,

가 Polyester 가

Polyester 931241

polyester 2 Dicarboxylic Acid (Sebacic Acid, Adipic Acid) 2 4:1 가

가

Ethylene-Glycol Terephthalic Acid Dimethyl-Ester

2 Dicarboxylic Acid , Sebacic Acid 가 .

Polyester 3gr.(Denier)

Polyester 5 Pilling .

Pilling Pilling

()가

Pill .

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